IN THE SPECIFICATION:

After the Title of the Invention, insert the following new heading and paragraph:

CROSS-REFERENCE TO RELATED APPLICATIONS

The present application is based on prior U.S. Application Serial No. 09/778,461, filed on February 7, 2001, now U.S. Patent No. 6,640,454, which is hereby incorporated by reference, and priority thereto for common subject matter is hereby claimed.

Paragraph beginning at line 17 of page 2 has been amended as follows:

As prior art for solving this problem, there is the invention described in the Japanese Patent Application Laid-open No. Hei 6-300869. In this prior art, a distance between various kinds of electronic parts and a magnetic sensor that is sufficient to eliminate influence of the electronic parts is ~~studie d~~ studied in detail, and the position of the magnetic sensor is determined based on the study. That is, the magnetic sensor is arranged as far as possible from an electronic part that is susceptible to magnetization to make the influence of the electronic part to the magnetic sensor minimum.

Paragraph beginning at line 1 of page 13 has been amended as follows:

An equivalent circuit of a general one axis magnetic sensor is shown in Fig. 1. A magnetic sensor 1 is for outputting an electric signal corresponding to a deflection é $\underline{\theta}$ with respect to a direction of a magnetic field as a voltage difference between an output signals SYL and SYH. The difference of the output voltage is amplified and converted to a digital signal by a differential amplifier (not shown) and an A/D converter.

Paragraph beginning at line 16 of page 15 has been amended as follows:

The line c in Fig. 3 indicates a case in which an article that is susceptible to magnetization is placed near the magnetic sensor, but the magnetic sensor is arranged in a predetermined position. It is found that, even if an article that is susceptible to magnetization is placed near the magnetic sensor, the relation between the detection voltage (Vby) of the magnetic sensor and the magnetic field direction (By) has linearity by arranging the magnetic sensor in a predetermined position. However, inclination of the straight line is different from that in the case of an even magnetic field, and the line does not pass the origin ~~P~~ O and is spaced

apart from the origin by "H". Therefore, since the relationship has linearity, accurate measurement of orientation is possible if the inclination and the "H" are corrected.